

HORTUS DUROBRIVENSIS III.

Bernard Harkness

ACER, Linnaeus - Sp. Pl. 1753

ACERACEAE - Maple Family.

Acer acuminatum, Wall.

KHAUNSING MAPLE

Himalayas

Wallich ex D. Don - Prodr. Fl. Nepal. 1825

Krüssmann 23 (1951)

Though not a tree for this climate, it has been persistent in sending up shoots to eight or ten feet in a planting made about 35 years ago from a distribution by the Arnold Arboretum. In its proper zone it should be a pleasing green-barked small tree with its three leaf lobes extended to long points. "Native of Nipaul in Sirinagur, where it is called Khaunsing", G. Don - Gardener's Dictionary. 1831.

Acer campestre, L.

HEDGE MAPLE

Europe, w Asia.

Linnaeus - Sp. Pl. 1753

Howard 153 (1947); Wyman 116 (1951).

A mature specimen of unknown age in Highland Park, growing without restrictions to a natural development, has made a tree 35 feet tall and with a branch spread of 36 feet. Its several trunks twist and turn. The names of Common Maple (Bean) and Field Maple (Krüssmann) indicate its prevalence in the European countries. Hedge Maple points to a use not commonly made of it in this country. By the middle of October its fall coloring is a mixture of yellow and green.

Acer capillipes, Maxim.

KISOGAWA MAPLE

Japan

Maximowicz in Bull. Acad. Sci. St. Petersburg. 1867

Bean I, 149 (1950); Krüssmann 24 (1951)

Emphasis is placed lately on a search for smaller trees of value in gardens of limited area. Kisogawa Maple, which name is here proposed for the first, is a worthy candidate to fulfill this need for several

reasons, Its bark is a striking combination of green with light striations. Its leaves, in outline much like our native Striped Maple, are reddish in unfolding and in mid-October were noted as variously red, purple and green. Fruiting is abundant in long decorative racemes. Trees in Durand-Eastman Park are in woodland and in Highland Park are under taller trees, where they grow well. It should be noted that the A. capillipes of Sargent's accounts of the Japanese flora (Mt. Hakkoda) was later found to have been A. Tschonoskii by Rehder, who cites only two collections of true A. capillipes to have been made: Tschonoski's discovery in 1864 and Sargent's collection of seed in 1892 along the Kisogawa from which the Arnold Arboretum distribution of plants was made.

Acer cappadocicum, Gled.

CAPPADOCIAN MAPLE

c & w Asia

Gleditsch in Schrift. Ges. Naturf. Fr. Ber. 1785

Blackburn 75 (1952); Pourtet 506 (1949)

Variety in plantings of large-tree maples could be had by more use of the Cappadocian Maple. In the limy soil of Highland Park it has thrived, making a broad-headed tree. With its shallow lobes, the leaf pattern is crisp and distinct. It is in the Norway Maple section with milky sap in the leaf-stem one of its characteristics. Krüssmann remarks on the golden-yellow of the leaves in autumn; our trees showed only partly green, partly yellow leaves at the time of their falling in mid-October.

Acer cappadocicum f. *rubrum*, (Kirchn.) Rehd.

RED CAPPADOCIAN MAPLE

Daghestan

Rehder in Jour. Arn. Arb. 1922

Bean I, 149 (1950); Krüssmann 24 (1951)

The redness of this form is evident in the leaves only on young terminal growth or on occasional suckers from the roots or the trunk. Normal leaves quickly turn green. In the autumn coloring there appear some reddish tints but not too markedly differing from the type.

Acer carpinifolium, S & Z.

HORNBEAM MAPLE

Japan

Siebold & Zuccarini in Abh. Phys-Math. Cl. Akad.
Wiss. Munch. 1845

Bean I, 150 (1950); Wyman 117 (1951)

Another candidate to satisfy the modern demand for small trees is Hornbeam Maple. Hardiness is proven by a specimen remaining from plants or seeds received here in 1920. Its real value is hard to determine as our one plant in Seneca Park is on the border of woodland where its growth has been forced one-sidedly toward the light. From other reports, however, it seems well recommended. Its leaves in a non-maple pattern make an interesting variation.

Acer circinatum, Pursh

VINE MAPLE

w North America

Pursh Fl. Am. Sept. 1814

Dom. For. Ser. 248 (1949); Wyman 117 (1951)

This west coast species must have been among the first maples planted in the Highland Park collection. It produced seed there in 1919 from which a great many plants were raised which, placed in varied situations, have demonstrated various uses for Vine Maple in this area. In an exposed area of scant soil depth (along St. Paul Boulevard, south of Veterans' Bridge) they are low, bushy shrubs with exceptional fall coloring. In Durand-Eastman Park they grow in the dense shade of tall trees as woodland sub-shrubs often with somewhat recumbent trunks. In sheltered areas they grow into small trees of 20 foot heights. Where exposed to the sun, the leaves are as brilliant as any maple in autumn color.

Acer cissifolium, (S. & Z.) K. Koch

TREFOIL MAPLE

Japan

K. Koch in Ann. Mus. Bot. Lugd-Bat. 1864

Blackburn 74 (1952); Krüssmann 24 (1951)

A seed collection made in Japan by E. H. Wilson, #11259, is represented in Highland Park by a tree planted in 1924. Possibly from injury to its trunk at the height of two feet, it split up into many

branches spreading out now to 30 feet but with a height of only 20 feet. It usually carries all season an abundance of unfertilized fruits in long racemes. Two older plants from Veitch in 1907 have normal trunk development. On these trees the fruits fall off at an early stage. The leaves through October are yellow and become shrivelled before falling off.

Acer crataegifolium, S. & Z.

HAWTHORN MAPLE

Japan*

Siebold & Zuccarini in Abh. Math.-Phys. Cl. Akad.
Wiss. Munch. 1846

Bean I, 152 (1950); Krüssmann 25 (1951)

This irregular growing small tree should be used much more in small gardens. It is the general appearance of a small-leaved plant that constitutes the hawthorn resemblance rather than any close approximation in its leaf shape. Once established it seems easily grown even though environmental conditions may not be the best. Its freedom from insects and diseases is worth noting. Its green bark with white stripes has winter landscape value. Our Highland Park plant came in 1919 from the Arnold Arboretum. In October its leaves change in part from green to yellow and start to fall after the middle of the month.

Acer diabolicum, Bl. f. *purpurascens*, (Fr. & Sav.) Rehd.

PURPLE HORNED MAPLE

Japan

Rehder - Bibliog. Cult. Trees and Shrubs. 1949

Bean I, 152 (1950); Blackburn 78 (1952)

Among maples this mountain species from Japan stands out by its large leaves. In the open its branches spread out until its width exceeds its height. Fruiting is frequently abundant. All of our plants seem to be derived from the 1892 collection of seed by C. S. Sargent, #2624, in Japan and later sent out by the Arnold Arboretum as the purple-flowered form. Judging by his account of the maples of Japan, Sargent did not recognize this form when collecting it. Though his account indicates that the autumnal color of typical Horned Maple was not good, our trees here display all shades of red and yellow on the same tree as the leaves begin to fall in mid-October.

Acer Ginnala, Maxim.

AMUR MAPLE

c Asia to Japan

Maximowicz in Bull. Phys.-Math. Acad. Sci. St.
Petersb. 1856

Fang 112 (1939); Wyman 118 (1951)

Reliable hardiness in our colder areas is one reason for the widespread use of Amur Maple. Other good qualities are its shrubby habit of growth, rich red autumn coloring of its leaves and parallel winged fruits which redden in the summer months. Seeds of Amur Maple have come to Rochester from various regional sources including, in 1923, the Echo Experimental Station in Manchuria operated by the old Chinese Eastern Railway.

Acer Ginnala 'DURAND DWARF', cl. nov.

On a plant of Amur Maple, one of a row serving as a screen and roadside planting in Durand-Eastman Park, there has grown what appears to be a bud mutation of considerable age. Propagation of this form has been undertaken in anticipation that a dwarfed Amur Maple will have considerable ornamental worth. On the parent plant this growth shows brilliant fall coloring two weeks before the rest of the plant, making a conspicuous dense mound several feet through.

Acer grandidentatum, Nutt.

WESTERN SUGAR MAPLE

w United States

Nuttall ex Torrey & Gray Fl. N. Am. 1838

Bean I, 155 (1950); Peattie 607 (1953)

Though in the western canyons it may reach sixty feet, our trees have not made much progress after reaching half that height. Their appearance is good with a broadly conical outline, dense twigs and many leaves somewhat smaller than the eastern Sugar Maple. The trunk becomes gnarled at the union of branches. The leaves color variously yellow and light red before falling in late October. The Ellwanger and Barry Nurseries, Spaeth Nurseries (Berlin) and the Arnold Arboretum were our sources of plants from 1906 to 1911.

Acer griseum, (Franch.) Pax
PAPERBARK MAPLE

w China

Pax in Engler, Pflanzenreich IV 1902

Pourtet 510 (1949); Wyman 118 (1951)

Long known to tree connoisseurs as especially handsome for its exfoliating orange-brown bark, Paperbark Maple has not been easy to propagate. We had in 1914 three plants from the Veitch Nursery and these Highland Park trees have in years past produced fertile seed and some landscape use has been made of their progeny in Durand-Eastman Park. Its rather small trifoliate leaves are strikingly glaucous underneath; in autumn coloring they become wine red.

Acer Grosseri, Pax var. *Hersii*, Rehd.
HERSMAPLE

n China

Rehder in Jour. Arn. Arb. 1923

Bean I, 157 (1950); Pourtet 510 (1949)

One tree in a remote section of Durand-Eastman Park remains of a distribution of seed made by the Arnold Arboretum directly from the collector in China, J. Hers, his #2800. Natural seedling production has occurred. Hers Maple is notable for bright, shining green bark on the branches, white-veined in contrast. The leaves are in the same pattern, though smaller, as our native Striped Maple. Planted in 1932 in sandy soil, in 1939 noted as 10 feet high, our plant is now about 18 feet.

Acer japonicum, Thunb.
FULLMOON MAPLE

Japan

Thunberg - Fl. Jap, 1784

Bean I, 158 (1950); Krüssmann 27 (1951)

With the term Japanese Maple securely linked to *A. palmatum*, the virtues of Fullmoon Maple are apt to be overlooked. Though two horticultural varieties were lost in the winter of 1933-34, a plant of the typical form raised from scions from the Arnold Arboretum in 1924 survived. It is now fifteen feet high. The numerous lobes of the leaf present a pattern that is unusual. Autumn coloring is considered good but last October its leaves had withered and fallen in con-

trast to A. palmatum which still made a fine show of color.

Acer leucoderme, Small

CHALK MAPLE

se United States

Small in Bull. Torr. Bot. Club 1895

Krüssmann 28 (1951); Pourtet 514 (1949)

Finding it "restricted to a few localities in the deep valleys of the southern Appalachians and the Piedmont region", Desmarais in a recent study of Sugar Maple relationships, (*Brittonia* 7:5 1952) considers Chalk Maple to be an intermediate type derived from A. floridanum and A. nigrum. Plants were received from the Arnold Arboretum in 1902 and the Biltmore Nurseries in 1906. It is interesting that another intermediate type arose here from a cross between Chalk and Eastern Sugar Maple, see A. senecensis. Autumn coloring of the leaves of this small tree is a pleasing reddish-orange.

Acer macrophyllum, Pursh

OREGON MAPLE

w North America

Pursh - Fl. Am. Sept. 1814

Dom. For. Ser. 250 (1949); Wyman 118 (1951)

In one woodland position in Durand-Eastman Park near Lake Ontario, Oregon Maple has matured into tree form some forty feet high and bearing fruit. In Highland Park it freezes back to ground level but for many years has regularly sent up shoots to ten feet or so. Leaves a foot across are not uncommon, the fruit is also large and hairy. First introduction here was from the Barbier Nursery, Orleans, France in 1907.

Acer micranthum, S. & Z.

PAGODA MAPLE

Japan

Siebold & Zuccarini in Abh. Math.-Phys. Cl. Akad. Wiss. Munch. 1845

Bean I, 161 (1950); Krüssmann 28 (1951)

Completely charming is this shrubby small tree. For its leaves in 5-lobed pattern with double serrations and on reddish petioles, for its long pendant

racemes of fruits, for its green streaked bark and for its smaller growth habit it should be acclaimed as a tree for modern landscapes. We received plants from the Arnold Arboretum in 1906, but as our plant until recently was labelled A. Tschonoskii it may have come as late as 1921 by error under that name. In the severe winter of 1933-34 it froze back to ground level and its present 15 foot height is achieved since that winter. Pagoda Maple holds its leaves very late in the season and after the middle of October exhibits a brilliant, glowing red color.

Acer Miyabei, Maxim.

MIYABE MAPLE

Japan

Maximowicz in Bull. Acad. Sci. St. Petersb. 1888

 Bean I, 161 (1950); Mottet 117 (1942)

About a dozen trees are in the Highland Park collection ranging in height from 20 to 35 feet. Plants were first received from the Veitch Nursery in 1903 and 1907. It is a broad-headed tree which with its light tan-colored bark, roughly ridged, makes a pleasant variation among the maples. Twigs, leaves and fruits are conspicuously hairy, though a tree with almost glabrous fruit has been noted in the collection here. Autumn coloring of the leaves is yellow and rather fleeting as the leaves drop by the middle of October.

Acer Mono, Maxim.

MONO MAPLE

e Asia

Maximowicz in Bull. Phys.-Math. Acad. Sci. St. Petersb. 1857

 Blackburn 75 (1952); Krüssmann 28 (1951)

As it is widespread in nature, Mono Maple might be expected to exhibit variations. A variant labelled here as microphyllum has smaller leaves and short annual growths which give a dense foliage mass and a different ornamental effect. It seems, however, not to be a recognized name. Other variations are in the leaf color from yellowish to bright green and in leaf petiole color from pale yellow-green to reddish. Mono Maple appears to approach maturity here as a round-topped tree when from 35 to 40 feet in height. In autumn its leaves turn yellow, later becoming brown by mid-October as they start to drop.

Acer Mono var. *tricuspis*, Rehd.

c China

Rehder in Jour. Arn. Arb. 1938

Krüssmann 29 (1951)

In 1914 we received three plants of this variety of Mono Maple from the Veitch Nursery in England of which two survive. They have a short trunk which breaks up into several branches with a resulting vase shape in outline. The three-lobed to entire leaves, smaller than the type, are distinctive among maples. Our trees have fruited and the horizontal samaras are in contrast to the only slightly divergent wings of typical Mono Maple. Seedlings raised here indicate that the variety is a stable one. It holds its leaves unchanged in color until late October.

Acer monspessulanum, L.

MONTPELIER MAPLE

s Europe, w Asia

Linnaeus - Sp. Pl. 1753

Krüssmann 29 (1951); Pourtet 503 (1949)

Though imported from both Veitch and Barbier in 1907, but one tree remains in the Highland Park collection. Its small, trident-like leaves are conspicuously glaucous beneath. In height our tree is about 30 feet; a somewhat crowded location has prevented normal crown development. Despite its southern range Montpellier Maple apparently is hardy and adaptable, as Krüssmann suggests, to adverse situations. It holds its leaves late in the fall, with yellow and orange coloring appearing early in November.

Acer Negundo, L.

BOX-ELDER

North America

Linnaeus - Sp. Pl. 1753

Bean I, 162 (1950); Wyman 119 (1951)

In Highland Park there is a corner of low-lying land where proper drainage is prevented by highways. In this area thrive several trees of Box-Elder. They are from near Cincinnati, Ohio where seed was collected by R. E. Horsey in 1915 when he was making plant surveys for Prof. Sargent. In this region the Box-Elder is not thought to be an ornamental tree.

By mid-October its leaves have yellowed and partly fallen.

Acer Negundo var. *pseudo-californicum*, Schwer.

Schwerin in Gartenflora 1893

Kempe Pl. 40 (1940)

The interest that Europeans had in Box-Elder is indicated in that we had this plant from Veitch in 1907 and from Spaeth in 1908. Most of the varieties were named by European botanists. The above, presumably segregated from seedlings from the west coast, has light green branchlets and mostly three leaflets. Our trees are now in the forty-foot range. A herbarium specimen shows a rich sumac-red autumn color for this variety. Interest is presently maintained in Europe in the varieties of Box-Elder as the current catalogue of Pierre Lombarts, Zundert, Netherlands lists eight varieties.

Acer Negundo var. *texanum*, Pax

TEXAS BOX-ELDER

s central U. S.

Pax in Bot. Jahrb. 1886

Pubescent three-foliolate leaves, pale bloomy twigs and fruit on a short stalk are characteristics of Texas Box-Elder. As Peattie has suggested these geographical forms are separated on rather slight botanical variations which do not alter much their ornamental use. Highland Park has one plant which came from the Arnold Arboretum in 1924. It is now about 38 feet in height and a vigorous plant though too crowded for full crown development.

Acer Negundo var. *violaceum*, (Kirsch.) Jaeg.

c United States

Jaeger in Jaeger & Beissner - Ziergeh. ed. 2 1884

Bean I, 163 (1950); Blackburn 74 (1952)

The variety of Box-Elder with young branches violet and with a bluish, glaucous covering from the Mississippi Valley has established itself within park areas as it has elsewhere in the east.

Acer nigrum, Michx. f.

BLACK MAPLE

North America

Michaux f. - Hist. Arb. Am. 1812

Dom. For. Ser. 254 (1949); Peattie 460 (1950)

Were I to disseminate Black Maple from the Rochester maple collection, I should choose one tree which bears large foliaceous stipules. This most convincing character for identification of Black Maple has long been known, v. Garden and Forest, IV, p. 148. However, Desmarais in Brittonia 7:5 has shown that stipules are present in perhaps but half of maples which exhibit the other leaf characteristics of Black Maple as yellowish-green under surface, pubescence of short, erect hairs and drooping margins.

Acer nigrum f. *ascendens*, forma nova.

A typo recedit ramis ascendentibus.

No botanical recognition has been found for the upright growing Black Maples. Desmarais (Brittonia 7:5) notes that Beal in 1894 found in his Michigan field studies of native maples one very narrow and eleven upright trees of *A. nigrum*. The type tree is a plant growing in Highland Park, cv. 'SLAVINS UPRIGHT', which has been fully described by B. H. Slavina (Nat. Hort. Mag. 29:3). Specimens are deposited in the Highland Park Herbarium.

Acer nikoense, Maxim.

NIKKO MAPLE

Japan, c China

Maximowicz in Bull. Acad. Sci. St. Petersburg. 1868

Krüssmann 29 (1951); Wyman 119 (1951)

The outstanding ornamental feature of Nikko Maple is its splendid autumn coloring, a brilliant rose-red preceded by delicate rose-pink shadings. The pubescent branchlets and leaves are useful for its recognition. There is no record of our trees ever fruiting. One plant remains from importations from Veitch in 1899 and 1906. Another tree now thirty feet high came from the Arnold Arboretum in 1911 and represents Sargent's seed collection, #3337, in Japan in 1892.

Acer Opalus, Mill.

ITALIAN MAPLE

s Europe

Miller - Gard. Dict. 1768

Howard 158 (1947); Pourtet 505 (1949)

Plants obtained from the Arnold Arboretum from 1912 to 1915 are reduced to two remaining specimens which have attained heights of 18 feet, appearing shrubby with several stems from the base of the tree. Herbarium specimens indicate that its early spring flowers are showy. Its leaves with short, wide lobes are an interesting and different pattern in maples.

Acer palmatum, Thunb. f. *atrolineare*, Schwer.

BLOODVEIN JAPANESE MAPLE

Schwerin in Gartenflora 1893

Blackburn 83 (1952); Krüssmann 32 (1951)

This Japanese Maple form is the least vigorous in our collection. It is shrubby and of intermediate height and unless special attention is given it becomes leggy and generally unattractive. The leaves are of interest being divided to the base into five lobes, linear, entire or remotely serrate and green when unfolding, then turning red when mature. Our material was obtained as scions from the Bobbink and Atkins Nursery in 1923 and 1924.

Acer palmatum f. *atropurpureum*, (Vanh.) Schwer.

BLOODLEAF JAPANESE MAPLE

Schwerin in Gartenflora 1893

Bean I, 166 (1950); Van Melle 184 (1943)

Through the year a glowing red color effect is displayed on the maple hillside in Highland Park, the result of planting the Bloodleaf Japanese Maple in generous groups. It grows to a 20 or 25 foot tree usually with more than one stem from the base. The $2\frac{1}{2}$ - $3\frac{1}{2}$ inch leaves are red from the beginning and have seven lobes all sharply and doubly serrate. Scions came from the Bobbink and Atkins collection in 1923 and the following year.

Acer palmatum var. *dissectum*, (Thunb.) Miq.
 THREADLEAF JAPANESE MAPLE

Miquel in Arch. Neerl. Sci. Nat. 1867

 Krüssmann 32 (1951); Wyman 120 (1951)

Their finely divided leaves in cool green color give the impression of a very choice plant to Threadleaf Japanese Maples. Never over three feet in height here, old plants widen out by curiously branching and intertwining stems until broad mounds well covered with foliage result. They have been very tolerant of encroaching shade which may indicate that close association with other plants affords some winter protection. So delicate a leaf, too, needs partial shading from summer sun. Propagating material was received from Bobbink and Atkins in 1924.

Acer palmatum f. *ornatum*, (Carr.) Schwer.
 SPIDERLEAF JAPANESE MAPLE

Schwerin in Gartenflora 1893

 Blackburn 83 (1952); Krüssmann 32 (1951)

No less, perhaps even more, strong in growth than its green counterpart, the Threadleaf, Spiderleaf Japanese Maple with red finely cut foliage grows the same type of mounds. As with many of the red-leaved forms of Japanese Maple, it enters an unsightly color stage in the fall in contrast to the always handsome green forms. From the New Jersey nursery of Bobbink and Atkins in 1924 material of this form was secured.

Acer palmatum var. *palmatum*, (K. Koch) Rehd.
 THUNBERG JAPANESE MAPLE Japan

Rehder in Jour. Arn. Arb. 1938

 Blackburn 82 (1952); Van Melle 182 (1943)

This double designation is understood to stand for the small tree form with the dense foliage mass produced by numerous very fine branchlets at the ends of the branches and with leaves of two inches or less having seven lobes in a normal green color. Thunberg's name was associated with this variety by Pax. It is accepted as a natural variety. In the collection are seedlings raised from various forms

which revert to this stronger growing and coarser leaved plant.

Acer pensylvanicum, L.

STRIPED MAPLE

North America

Linnaeus - Sp. Pl. 1753

Finlay 67 (1934); Little 39 (1953)

Striped Maple is indigenous within the areas in which Rochester Parks were developed, but an additional 25 plants from a nursery source were set out in 1925. It is a plant best naturalized and left alone to maintain itself by reseeding in areas best suited to its development such as half-shaded borders of woodland.

Acer platanoides, L.

NORWAY MAPLE

Europe, w Asia

Linnaeus - Sp. Pl. 1753

Krüssmann 32 (1951); Wyman 121 (1951)

Though not without faults, Norway Maple has lately been depended upon for the greater part of planting on Rochester's city streets. As space becomes more confined both for root run and top growth, resource must be made to trees of lesser stature. In our parks we hope always to have room for the 60 foot branch spread of a mature Norway Maple.

Acer platanoides f. *columnare*, (Carr.) Schwer.

COLUMNAR NORWAY MAPLE

Schwerin in Gartenflora 1893

Bean I,169 (1950); Wyman 121 (1951)

As rapid in growth as the type but lacking the broadly spreading secondary branches, Columnar Norway Maple becomes a broad column in maturity. It has considerable value for a position which can support a vigorous tree but where a limited top spread of branches is desirable. Our tree is derived from propagating materials received from the Arnold Arboretum in 1923.

Acer platanoides f. *crispum*, (Lauth.) Rehd.
CRIMPED NORWAY MAPLE

Rehder - Bibliog. Cult. Trees and Shr. 1949

Blackburn 77 (1952)

In 1881 Nicholson gave this form the name of cu-
cullatum and it has been generally grown under this
name. Rehder and others found it to be identical
with the crispum of Lauth, named one hundred years
earlier. Plants were distributed by Moons Nursery in
1913 and by the Arnold Arboretum in 1922. Our trees
are tall and somewhat sparsely branched. The leaves,
broadly cuneate, have their short lobes curled and
twisted seemingly pulling the leaf into a shallow cup
shape. They are a yellowish-green in color.

Acer platanoides f. *erectum*, A. H. Slav.
MOUNT HOPE MAPLE

A. H. Slavin in Am. Midl. Nat. 1931

Blackburn 77 (1952); Wyman 121 (1951)

By virtue of its appearance in a row of Norway Ma-
ples planted in Mt. Hope Cemetary near the avenue of
the same name where the Ellwanger and Barry Nursery
progressed to fame, the Mount Hope is linked by
Blackburn to this slow-growing maple. It can be dis-
tinguished rather easily from the columnare clone by
its stouter secondary branches extending stiffly at
right angles to the main trunk before turning upward,
by a tendency to produce larger than normal leaves
and, in maturity, by a conical rather than a columnar
outline. The type tree is now about 50 years old.

Acer platanoides f. *globosum*, (Nich.) Schwer.
GLOBE NORWAY MAPLE

Schwerin in Gartenflora 1893

Krüssmann 32 (1951); Wyman 121 (1951)

Globe-headed trees may come back into favor again
in the near future for certain urban areas. In that
event attention should be given to Globe Norway Maple
as it has all the vigor and tolerance of that species
In Highland Park since 1913 (from Moons Nursery in
Morrisville, Pa.O, top-grafts made at six feet are
now supporting globes 15 feet wide by 15 feet high.

Plants budded closer to the ground obtained from the Arnold Arboretum from 1921 to 1923 are now mounds of foliage from the ground to 12 feet high.

Acer platanoides f. *laciniatum* (Lauth.) Schwer.
EAGLE-CLAW MAPLE

Schwerin in Gartenflora 1893

Bean I, 169 (1950); Krüssmann 32 (1951)

Herbarium specimens can be made of the attenuate and curved-lobed leaves of this form justifying the eagle-claw designation very aptly. Lobes of the leaves are not divided all the way to their bases. Bean calls this the oldest of the many forms of Norway Maple. We have no maturing trees; plants received here in 1922 did not survive, though we have it now in small trees at Durand-Eastman Park. It is reputed to be a less vigorous form.

Acer platanoides f. *palmatifidum*, (Tausch) Dans.
CUTLEAF NORWAY MAPLE

Dansereau in Nat. Canad. 1945

Blackburn 77 (1952)

In 1922 we had buds of what was called Lorberg Maple from the Arnold Arboretum which have resulted in one tree about 30 feet high with a 32 foot spread of branches. The trunk has curious knotty growths from which spring short branchlets. Investigation showed that the Arnold Arboretum at present has two older trees obviously of this same clone: one labelled palmatifidum from the Hunnewell Estate originally, the other labelled Lorbergii from the Spaeth Nursery originally. Since the lobes of the leaves lack any upward curving and do have their edges mostly drooping, I am calling our plant Cutleaf Norway Maple.

Acer platanoides f. *rubrum*, (Herd.) Pax
BLOODLEAF NORWAY MAPLE

Pax in Bot. Jahrb. 1886

Blackburn 77 (1952); Krüssmann 32 (1952)

Despite its name, this form sent out many years ago from the Reitenbach Nursery in Lithuania is no

rival for the newer red-leaf forms. In late autumn when the Norway Maple leaves turn their light yellow shades shortly before dropping, Bloodleaf Norway Maple takes on the dull red mixed with yellow coloring such as our Red Oaks exhibit. Our tree from the Ellwanger and Barry Nursery in 1907 is now only 30 feet in height due to suppression by other trees.

Acer platanoides f. *Schwedleri*, (K. Koch) Schwer.
SCHWEDLER MAPLE

Schwerin in Gartenflora 1893

Bean I, 169 (1950); Wyman 121 (1951)

Schwedler Maple has been for many years a standard nursery offering to those who liked the reddish spring coloring of its leaves. It attains the same size as typical Norway Maple; the Highland Park tree was supplied by Ellwanger and Barry in 1907. In autumn the red of spring does not reappear except in the veins giving a nice accent to the soft yellow of the November change of color. Lately clones have been introduced in which the dark red coloring is permanent in the leaf. We have 'CRIMSON KING' from Wayside Gardens in 1948.

Acer platanoides f. *undulatum*, (Dieck) Pax
CRINKLELEAF NORWAY MAPLE

Pax in Engler - Pflanzenreich IV 1902

Krüssmann 33 (1951)

Introduced by the German nurseryman, Georg Dieck, in 1885, Crinkleleaf Norway Maple is less well known being omitted from most lists of Norway Maple forms. It is a vigorous grower, however, as our tree from Ellwanger and Barry in 1907 was planted very close between an old Silver Maple and a Red Oak. Between them it has pushed up to 40 feet in height with a full growth of branches. It represents a group with bullate or blistered leaves which are deeply cordate with undulate margins.

Acer Pseudo-Platanus, L.

SYCAMORE MAPLE

Europe, w Asia

Linnaeus - Sp. Pl. 1753

Krüssmann 33 (1951); Wyman 122 (1951)

Though there are excellent old specimen trees in the Rochester Parks, and an occasional planting along city streets, Sycamore Maple has not proven as dependable a tree in respect to hardiness and long life as the Norway Maple. Old trees have an especial charm derived from the flaking bark characteristic. No autumn coloring is shown as the leaves generally freeze while still hanging green on the tree.

Acer Pseudo-Platanus f. *Worleei*, Rosenth.

GOLDEN SYCAMORE MAPLE

Rosenthal ex Schwerin in *Gartenflora* 1893

Bean I, 171 (1950); Wyman 122 (1951)

Our Golden Sycamore Maple is one remaining from six plants imported from the English firm of J. Cheal & Sons in 1915. It was badly injured in the cold winter of 1933-34 and still bears ugly scars from that time. Since then it has regained 30 feet height and as much spread and, being in the open, its round mass is very effective in the spring when its yellowish leaves are most ornamental.

Acer Pseudo-Sieboldianum, (Pax) Komar.

CHO-SEN MAPLE

Korea, Manchuria

Komarov in *Act. Hort. Petrop.* 1904

Blackburn 81 (1952); Woeikoff 61 (1941)

Distinguished for the purple color of its flowers and fruits, for the white hairiness of young leaves, petioles and pedicels and for the many-lobed leaf in a rounded, even pattern, the Cho-sen Maple is a dependably hardy plant for this area. It is doing well both in the lime-free soils of Durand-Eastman Park and in the limy soils of Highland Park. It is a small tree of irregular, graceful growth. We received a generous gift of 25 plants from the Arnold Arboretum in the fall of 1919.

Acer rubrum, L.

RED MAPLE

e N. America

Linnaeus - Sp. Pl. 1753

Krüssmann 33 (1951); Peattie 465 (1950)

One would not expect a tree associated in nature with swamps or cool ravines to be as amenable as it has proved to be in Rochester park and street tree plantings. Its smooth gray bark marks it and gives it value as an ornamental tree. A particular tree of rounded habit was once selected for propagation and is planted along the Sea Breeze entrance to Durand*Eastman Park.

Acer rubrum f. *columnare*, (Rehd.) Schwer.

COLUMNAR RED MAPLE

Schwerin in Mitt. Deutsch. Dendr. Ges. 1901

Bean I, 172 (1950); Wyman 123 (1951)

Though our specimens at Durand-Eastman Park are too young to be appraised, Columnar Red Maple is receiving some attention for planting where lack of space requires this type of tree.

Acer rufinerve, S & Z.

BAT MAPLE

Japan

Siebold & Zuccarini in Abh. Math-Phys. Cl. Akad.
Wiss-Munch. 1845

Blackburn 80 (1952); Krüssmann 34 (1951)

Just as reported by Jackson, Catalogue of the Trees and Shrubs at Westonbirt, of its cultivation in England, the oldest Bat Maple in Highland Park has lost its lower branches and seems not disposed to make a long-lived specimen tree. It probably came as a small plant from the Arnold Arboretum in 1919. As a young plant it is pleasing for the striped bark of its group. According to Prof. Matsumura, this maple is rarely cultivated in its native Japan.

Acer saccharinum, L.

SILVER MAPLE

e N. America

Linnaeus - Sp. Pl. 1753

Dom. For. Ser. 258 (1949); Kempe Pl. 42 (1940)

Notations on the file caed for Silver Maple include the purchase of a thousand young trees from an Ohio nursery in 1909 and the same number from Barbier in France seven years later. Some of these are now the mature trees on Rochester's city streets that worry us in every wind storm. In the parks where protected by terrain from wind damage, Silver Maple has produced magnificent specimens. The cut-leaf, the weeping and the pyramidal forms are also grown in the collection.

Acer saccharum, Marsh.

SUGAR MAPLE

e N. America

Marshall - Arbust Am. 1785

Dom. For. Ser. 252 (1949); Peattie 453 (1950)

If the Sugar Maple were a rare tree, we might set a higher value on its glorious contribution of fall color. It has not been neglected, however, in the park plantings and especially at Genesee Valley Park there are numerous fine specimens. It appears, also, to be reasonably durable as a street tree in Rochester, though not as tolerant of adverse conditions as the Norway Maple.

Acer saccharum f. *columnare*, (Temple) *gradus novus*

Acer saccharinum columnare, F. L. Temple Catalog 1885-86. non hort.

~~*Acer saccharinum monumentale*~~, F. L. Temple. Catalog 1887-88.

Acer saccharum nigrum monumentale, (Temple) Sudworth - Nomencl. Arb. Fl. U.S. 1897

Acer saccharum f. *conicum*, Fernald in *Rhodora*. 1934

Acer saccharum f. *monumentale*, (Temple) Rehder - Bibliog. Cult. Trees and Shrubs. 1949

If one carries present day nomenclatural trends to a logical conclusion, one forma name should be sufficient for all of the upright habit forms of Sugar Maple. The earliest name I find is given above. The original description states, "grows in a compact, columnar shape". As introduced into cultivation, other clones should be given cultivar names. It was necessary to give new cultivar names (see *Baileya* 2:3) to the two clones introduced by F. L. Temple from his Shady Hill Nurseries, Cambridge, Mass. The confusion concerning Temple's name is indicated in the synonymy; his columnare is not the columnare of recent horticultural writing as he clearly indicates by description the clone which I have called 'Newton Sentry', now in most collections as monumentale. The original tree still stands in a Newton, Mass. cemetery. The second introduction of Temple's, of which he writes, "grows somewhat wider", he called monumentale, but it has mostly come to be known as columnare. Because of this confusion I have proposed the monumentale name be dropped and that this clone be known as 'Temples Upright'.

The horticultural reversal of Temple's names arose from G. B. Sudworth's nomenclatural treatment which was followed by Rehder, apparently without investigation. Sudworth cited Temple's columnare from the 1889 catalog and rejected it because of A. columnaris, Pax (1886). Pax's mention of A. columnaris as a synonym of typical Norway Maple in *Bot. Jahrb.* 7 (1886) does not validate such rejection. Moreover, the correct catalog citation as given above gives priority in time of publication to Temple's name.

If broadly interpreted, Temple's columnare should, I think, include Fernald's f. conicum. It seems alien to Fernald's philosophy (see his words anent Lombardy Poplar in Gray's Manual, 8th ed.) to have a forma designation for one lone tree which may die without perpetuation of the clone. There have been similar variations in Sugar Maple noted before and there are, no doubt, more to be found. Dr. A. F. Blakeslee noted such in *Torreyia* 14:8 (1914), A Possible Habit Mutant of the Sugar Maple (Acer saccharum). Correspondence with the late Dr. Blakeslee revealed that the tree he discovered is no longer living and that an unfortunate series of mishaps prevented any propagation from it.

The two clones now commonly grown are distinguished as follows:

A- Many ascending branches, with no dominant central leader; leaves yellow-green, not leathery, margins plane (as of Sugar Maple) - cv. TEMPLES

UPRIGHT.

AA- Few ascending branches, with strong central leader and stubby lateral branches; leaves dark green and leathery in texture, margins wavy (as of Black Maple) - cv. NEWTON SENTRY.

Acer saccharum var. *Schneckii*, Rehd.

SCHNECK MAPLE

sc United States

Rehder in Sargent - Trees and Shrubs II. 1913

An Arnold Arboretum distribution in 1907 of a Gattinger, Tenn., form of Sugar Maple is now determined to be this variety. There were three trees in Highland Park labelled *A. s. Rugelii*, of which one is Black Maple and the other two are Schneck Maple. According to Desmarais (*Brittonia* 7:5) it is an intermediate found in a zone where typical Sugar Maple meets Florida Maple. Our Schneck Maple trees are now over 40 feet in height.

Acer senacaensis, B. H. Slav.

SENECA MAPLE

A. leucoderme X *A. saccharum*

B. H. Slavin in *Phytologia* 5:1. 1954

Seed gathered in 1919 from Chalk Maple growing in Seneca Park was found to have been pollinated by Sugar Maple. The resulting trees planted in Durand-Eastman Park are now over 30 feet in height with a spreading top. As the originator has observed (*Nat. Hort. Mag.* 29:3) Seneca Maple is intermediate in most respects between its parents, which brings it into a useful class of trees in respect to habit.

Acer tataricum, L.

TATARIAN MAPLE

se Europe, w Asia

Linnaeus - *Sp. Pl.* 1753

Bean I, 175 (1950); Wyman 124 (1951)

True Tatarian Maple seems much neglected in favor of Ginnala Maple in American gardens. It may be distinguished by its unlobed leaves on mature trees; strong shoots show a juvenile character of lobed leaves and are then difficult to separate from Ginnala Maple. Tatarian Maple is a good small tree with no special cultural requirements. Five-foot plants came to Highland Park in 1907 from the Ellwanger and Barry nursery of which one survives and is 18 feet

tall in a none too favorable situation.

Acer tegmentosum, Maxim.

Manchuria, Korea

Maximowicz in Bull. Phys.-Math. Acad. Sci.
St. Petersburg. 1856

Bean I, 175 (1950); Woeikoff 62 (1941)

From the collection, #10727, made by E. H. Wilson in 1918 we had seeds from the Arnold Arboretum. The resulting trees on a hillside in Durand-Eastman Park were lost track of until recently. Our thriving round-headed trees indicate that *A. tegmentosum* may be the best of the whole macrantha section for this area. In comparison with *A. capillipes*, it has no redness in unfolding leaves and has about half as many prominent veins; the whole leaf seems greater because of a larger basal section.

Acer Trautvetteri, Medv.

REDBUD MAPLE

Caucasus

Medvedef in Isv. Kavkazsk. Obshch. Liubit.
Estestv. 1880

Krüssmann 36 (1951); Pourtet 506 (1949)

Though of proven hardiness, Redbud Maple seems attuned to other growth rhythms than ours. About October first it suddenly loses all its leaves and it is slow to leaf out in the spring. It has made a 35 foot tree of good ornamental value excepting its early bareness in autumn. Two sources are noted, the Spaeth Nursery in 1902 and Ellwanger and Barry in 1906.

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